



A Furukawa Company

Your Optical Fiber Solutions Partner®

## Crimp & Cleave Termination Instructions

for 50 and 62.5  $\mu\text{m}$  GiHCS®, 200  $\mu\text{m}$  HCS® LC Connectors



### For Use With:

50 and 62.5  $\mu\text{m}$  GiHCS® 2.2 mm  
Fiber Optic Cables

200  $\mu\text{m}$  HCS® 2.2 mm  
Fiber Optic Cables

LC and LC Duplex  
Crimp & Cleave Connectors

## Important Safety and Warranty Information

---

### Please Read First

Please make sure to **READ** and understand termination instructions completely. Improper assembly will cause poor termination results and cause damage to termination kit components.

Make sure you **WEAR** eye protection during the termination process. Bare optical fiber is sharp and may splinter; handle very carefully and make use of the provided fiber optic shard disposal container.

OFS **WARRANTS** this termination kit to be free of defects for a period of 90 days from the date of purchase. Each kit is qualified at our factory prior to shipment. OFS will, at our discretion, repair or replace tools suspected defective due to our workmanship within the stated warranty period. This excludes damage to any kit component due to improper use.

OFS recommends that all replacements or repairs be made at our manufacturing facility, except where specifically outlined. Please **CONTACT** the sales representative in your region or call the factory for technical support:

Mon-Friday, 8:00 am-5:00 pm EST.

860-678-6636

770-798-5555 [Outside the USA and Canada]

## Table of Contents

Content	Page
LC Termination Kit Contents . . . . .	1
Related Accessories. . . . .	2
LC and LC Duplex Connectors . . . . .	2
Insertion Loss Test Kit . . . . .	2

### Termination Instructions

Step 1: Slide Strain Relief Boot . . . . .	3
Step 2: Remove Outer Cable Jacket . . . . .	3
Step 3: Remove ETFE Buffer. . . . .	4
Step 4: Install Connector Body. . . . .	5-6
Step 5: Cleave Optical Fiber . . . . .	7
Step 6: Install Anti-snag Latch or Duplexing Clip. . .	8

Content	Page
<b>Maintenance &amp; Trouble Shooting Guide</b>	
Importance of Cleave Tool Cleaning. . . . .	9
Cleave Tool Cleaning Kit. . . . .	9
Troubleshooting. . . . .	10

## SC Termination Kit Contents

### Contents

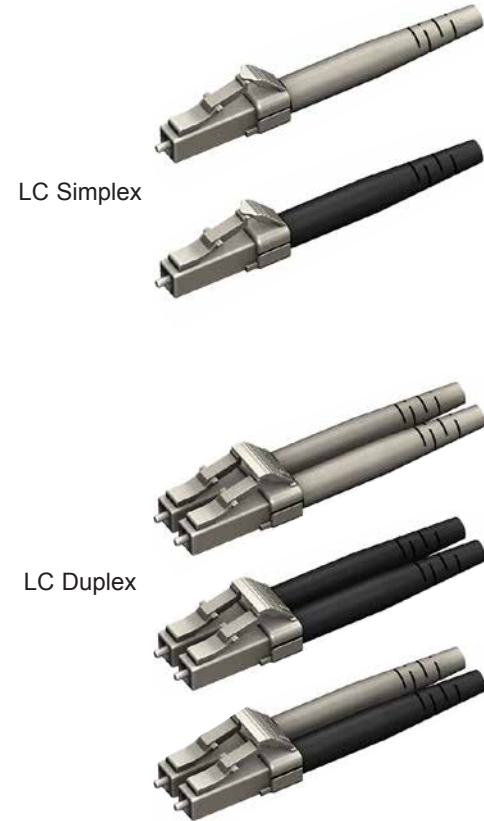
Part Numbers	Description
DT03732-LC1 . . . . .	GiHCS LC Termination Kit
DT03732-LC2 . . . . .	GiHCS LC Cleave Tool Only
P76859 . . . . .	GiHCS LC Instruction Manual
AP01224 . . . . .	Cable Strip Tool
BT03865-07 . . . . .	Crimp Tool LC (Black Handles)
CP01229-22 . . . . .	ETFE Buffer Stripper w/ prong tool and brush
AP01225 . . . . .	Scissors
K60791 . . . . .	Optical Fiber Shard Disposal Unit
K60792 . . . . .	Alcohol Prep Pad (Box of 100)

*Other Items Required (not included in kit): Safety Glasses, Marker*



## Related Products and Accessories (Sold Separately)

<b>Part Numbers</b>	<b>Description</b>
P26763-01 . . . . .	LC Simplex Connector (Beige Boot)
P26763-02 . . . . .	LC Simplex Connector (Black Boot)
P26764-01 . . . . .	LC Duplex Connector (2 Beige Boots)
P26764-02 . . . . .	LC Duplex Connector (2 Black Boots)
P26764-03 . . . . .	LC Duplex Connector (1 Beige + 1 Black Boots)
P10188-15 . . . . .	Insertion Loss Test Kit for 50 and 62.5 $\mu$ m GiHCS LC Connectors
P16247 . . . . .	Cleave Tool Cleaning Kit (Includes cleaning fluid and safe cleaning swabs)



## Termination Instructions

---

### STEP 1

#### Install Strain Relief Boot

---

- Slide STRAIN RELIEF BOOT (tapered end first) onto cable end and slide approximately 3 inches [76 mm] out of way.



### STEP 2

#### Remove Outer Cable Jacket

---

- Mark cable outer jacket 2.5 inches [63.5 mm] from cable end with a marker
- Using 2nd hole (marked 1.6) from the open side of the cable jacket strip tool, remove the 2.5 inches [63.5 mm] of outer jacket..



### STEP 3

## Remove ETFE Buffer

- Insert the buffered fiber through the guide tube of the ETFE Buffer Strip Tool, all the way in until the cable jacket bottoms out inside it.
- Holding cable securely, squeeze the tool's handles to cut ETFE buffer then PULL STRAIGHT to remove the ETFE buffer.
- With alcohol prep pad folded in two, wipe surface of fiber where the ETFE buffer was just removed.



### NOTE:

Be careful while handling the ETFE Buffer Strip Tool. Handle it as a precision device and do not strike on hard surfaces or drop.

Be sure to clean the ETFE Buffer Strip Tool's blades frequently using the small bristle brush provided.

### NOTE:

If unable to insert ETFE buffered fiber through the guide tube, trim tip of the fiber using scissors. If a short length of cable is being terminated, wrap the cable around your finger to prevent fiber from being pulled out of cable jacket.

## Termination Instructions

### STEP 4

#### Install Connector Body

- Locate the CONNECTOR BODY subassembly into the CRIMP TOOL nest as shown. Close the crimp tool handles lightly to secure connector in nest, but do not yet apply crimp
- Insert stripped fiber into CONNECTOR BODY subassembly until the cable jacket bottoms out inside the connector



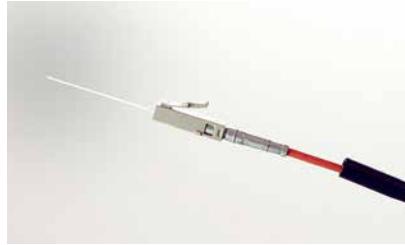
#### NOTE:

Be careful not to touch the GiHCS fiber coated surface once the fiber has had the ETFE buffer removed. The coating may retain finger oils which can transfer to and damage the gripper pads in the cleave tool during later termination process steps.



- Squeeze handles of CRIMP TOOL to apply crimp. CRIMP TOOL will not release until fully crimped.

- Remove CONNECTOR from CRIMP TOOL nest. Slide up and install BOOT onto CONNECTOR.



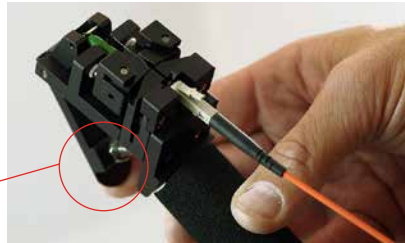
## Termination Instructions

### STEP 5

#### Cleave Optical Fiber

- Holding the CLEAVE TOOL in a horizontal position, grip the handle while leaving your index finger free to actuate trigger
- Gently insert CONNECTOR BODY into cleave tool as shown. Be sure to have it fully inserted and release the CONNECTOR BODY
- Using index finger, slowly depress trigger to perform the cleave operation. The cleave process is complete when the optical fiber snaps away from the connector. Do not release the trigger just yet!
- Before releasing the trigger, remove CONNECTOR BODY from the cleave tool and grasp the optical fiber scrap while releasing the trigger. Gently remove the scrap fiber from the cleave tool while keeping it away from the tool's diamond blade. Place the scrap optical fiber into the fiber optic shard container for safe disposal.

Trigger



#### NOTE:

Careful while handling the Cleave Tool. Handle it as a precision device and do not strike on hard surfaces or drop.

Keep the Cleave Tool clean and free from oils, including naturally occurring finger oils. The diamond blade and gripper pads should be cleaned often (e.g. every 50 cleaves).

Use OFS Cleave Tool Cleaning Kit Part # P16247 – available separately. Do not use isopropyl alcohol to clean any part of the Cleave Tool, especially near the gripper pads as alcohol may ruin them.

Do not insert metal tools near the diamond blade as it is quite sensitive and very fragile and can chip.

Make sure the CONNECTOR BODY is fully seated in the Cleave Tool. Do not hold onto the CONNECTOR BODY during the cleave process as this may induce undesirable torsion stress which will have adverse effect on cleave surface quality.

## STEP 6

### Install Anti-snag Latch or Duplexing Clip

---

#### Simplex Connector:

- Spread the clip slightly as shown.
- Install the clip around the connector, aligning as shown. Wrap around and snap on to secure.



#### Duplex Connector:

- Spread the clip slightly as shown.
- Install the clip around the connectors, aligning as shown. Wrap around and snap on to secure.



## Maintenance

---

### Importance of Cleave Tool Cleaning

The Cleave Tool included with OFS' Termination kits contains movable parts, wear items, and a diamond blade that require regular maintenance, care, or replacement in order to perform satisfactorily. Damage and parts replacement expense can result if recommended procedures and techniques are not followed.

- Diamond blade and gripper pads must be cleaned, kept oil free, and replaced if broken or worn
- The Cleave Tool trigger must be depressed slowly to allow the tool to work properly

### Cleave Tool Cleaning Kit

For cleaning your cleave tool, please order the OFS Cleave Tool Cleaning Kit (part #P16247) which includes recommended cleaning fluid, swabs, and complete instructions.

# Trouble Shooting Guide

Problem	Dim-light termination/ no light termination	Poor cleave quality / High insertion loss	Fiber does not cleave	Fiber protrudes or recesses too much after cleave
Possible Explanations	<p>Improper ETFE strip technique resulting in HCS coating scratch. <i>See step 3.</i></p>	<p>Diamond blade needs to be cleaned or replaced if chipped.</p> <p>Gripper pads needs to be cleaned or replaced if too worn.</p> <p>Cleave tool trigger depressed too quickly.</p> <p>Improper crimp retention causing fiber to slip with respect to connector.</p>	<p>CONNECTOR BODY not fully inserted into cleave tool during cleave process.</p> <p>Did not let go of CONNECTOR BODY during cleave process.</p> <p>Diamond Blade chipped or broken.</p>	<p>Gripper pads need to be cleaned or replaced because the fiber is slipping through them.</p> <p>Improper cleave technique.</p> <p>Improper crimp retention causing fiber to slip with respect to connector.</p> <p>CONNECTOR BODY not fully inserted into cleave tool during cleave process.</p>

## Termination and Test Kits Available

---

OFS offers various field termination kits and insertion loss tests kits configured to support each crimp & cleave connector type we offer. Contact a customer service representative to discuss your specific application.

This document is for informational purposes only and is not intended to modify or supplement any OFS warranties or specifications relating to any of its products and services.

Copyright © 2014 OFS Fitel, LLC.  
All Rights Reserved.

1014



55 Darling Drive, Avon, CT 06001

**To learn more, please call or visit our website.**

Phone: **1 860 678 0371**

Toll Free: **1 888 438 9936**

Web: **[www.ofsoptics.com](http://www.ofsoptics.com)**

**P76859 rev.—**

## **Trademark Information:**

Manufactured in the USA by OFS.

GiHCS and HCS are registered trademarks in the USA of OFS Fitel, LLC.